IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of   Docket No: Q88874

Thomas LEVY, et al.

Appln. No.: 10/541,694   Group Art Unit: 2443

Confirmation No.: 1929   Examiner: George C NEURAUTER

Filed: August 5, 2005

For: SIGNALLING IN CONTROLLED ACTIVE NETWORKS

REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

        In accordance with the provisions of 37 C.F.R. § 41.41, Appellant respectfully submits

this Reply Brief in response to the Examiner's Answer dated April 28, 2010. Entry of this Reply

Brief is respectfully requested.

Table of Contents

STATUS OF CLAIMS

Claims 1-16 are pending in the present application. Claims 1-16 stand finally rejected.

The rejections of claims 1-16 are being appealed.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1.   New Ground of Rejection of claims 1-5 and 13-14 under 35 U.S.C. § 112 , second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention (added after remand from the Board).

2.   Rejection of claims 1-16 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art in view of DAN: Distributed Code Caching for Active Networks (Decasper, D. and Plattner, B., Proceedings of IEEE INFOCOM'98, April 1998, pp. 609-616).

ARGUMENT

At least for the reasons discussed below, Appellants submit that the rejections of the claims on appeal are improper, and reversal of the grounds of rejection is requested.

Also, Appellants submit that claims 1-16 are patentable for at least the reasons presented in the Appeal Brief filed June 5, 2009.

1.   New Ground of Rejection of claims 1-5 and 13-14 under 35 U.S.C. § 112 , second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

An Appeal Brief under 37 C.F.R. § 41.37 was filed on June 5, 2009. In response to the Appeal Brief, on August 3, 2009, the Examiner issued an Examiner's Answer. The Appellant filed a Reply Brief on September 9, 2009, in response to the Examiner's Answer, which was entered on October 19, 2009. On April 12, 2010, the Board remanded the Appeal to the Examiner stating that the application is not ready for appeal because claims 1, 2, and 4 contain functional language that may be indefinite under 35 U.S.C. § 112, second paragraph. In response to the Board's remand, on April 28, 2010 the Examiner issued an Examiner's Answer newly rejecting claims 1, 2, and 4 under 35 U.S.C. § 112, second paragraph.

On pages 2-8 of the Examiner's Answer dated April 28, 2010, the Examiner states that claim 1 recites "means controlled by the virtual circuit set-up means for sending active code to the active node," claim 2 recites "means for selecting active code in the library," and claim 4

4

recites "means for generating active code on the fly." The Examiner asserts that the specification

and drawings do not disclose sufficient corresponding structure, material, or acts for performing

the claimed function, as required under 35 U.S.C. § 112, 6th paragraph, therefore, the disclosure

is not adequate because it does not point out and distinctly claim the invention as required by 35

U.S.C. § 112, second paragraph.

In response, Appellant has not amended the claims because Appellant believes that the

claimed limitations are supported in the Appellant's disclosure. The Appellant's written

description discloses sufficient corresponding structure, material, or acts for performing the

claimed function that one of ordinary skill in the art would recognize what structure, material, or

acts perform the claimed function. Therefore, Appellant submits that the newly cited 35

U.S.C. § 112, second paragraph rejection is improper and should be reversed.

Specifically, as pointed out in the Appeal Brief, support for claim 1 can be found at, for

example:

> 1.   An active telecommunications network comprising:
> an active node (FIG. 1, element 11) comprising active code reception means and
> an active code execution environment (page 5, lines 14-16); and
> a signaling control unit (FIG. 1, element 3; page 5, lines 23-27) comprising:
> means for receiving a request (FIG. 1, element 5; page 5, lines 27-34) to set up a
> virtual circuit between a client terminal (FIG. 1, element 1) and a server terminal (FIG. 1,
> element 2);
> a virtual circuit set-up means (page 5, lines 29-34); and
> means controlled by the virtual circuit set-up means for sending active code to the
> active node (page 5, lines 34-36).

Further, by way of example, Appellant submits the following aspects of the written

disclosure and figure for supporting the claimed elements.

As described in page 4, lines 32 to page 5, line 1 of the Appellant's originally filed

specification:

> "the FIGURE represents a virtual circuit request (call request) 5 sent from a client
> terminal 1 to a server terminal 2. The two terminals are connected to the network, which
> further includes one or more signaling control units 3, 4 and routing systems (or nodes),
> of which some nodes 11 are active nodes and other nodes 12 are not active nodes."

Further, page 5, lines 23 to line 36 describes:

> "<u>Setting up the virtual circuit</u> is managed by <u>one or more signaling control units 3,
> 4</u>. The number of signaling control units used to set up a call depends on the location of
> the terminals concerned in terms of their network. These units [<u>one or more signaling
> control units 3, 4]</u> comprise means for receiving a virtual circuit request 5 from a client
> terminal 1 and means for setting up a virtual circuit between the client terminal 1 and a
> server terminal 2. Such means may use the H323 protocol or the Session Initialization
> Protocol known in the art and all the means for communicating with an IP network with
> which signaling control units are conventionally provided. <u>The virtual circuit set-up
> means control the means for sending active code to the active node</u>, as explained next."

Further, as described on page 8, line 36 to page 9, line 6:

> "[i]n a variant, <u>one or more of the signaling control units 3, 4 can comprise a pre-
> compiled active code library</u> (not shown in the FIGURE). In this variant, the signaling
> control unit comprising the library, for example <u>the unit 3</u>, <u>selects the appropriate active
> codes from among those available in the library</u>, following the step of negotiation
> involving the signaling control units 3, 4 and the terminals 1, 2."

Also, as described on page 9, lines 16-24:

> "[i]n a still further variant, appropriate active codes <u>are generated on the fly by a
> signaling control unit 3 </u>on the basis of the result of the negotiation that is effected in real

> time and enables the source code most appropriate to the negotiation to be generated,
> followed by compiling it in accordance with a dynamic architecture of the active nodes
> 11 before deploying the compiled appropriate codes among the nodes of the network."

Therefore, the one or more signaling control units 3, 4, for example, comprise the

claimed "means controlled by the virtual circuit set-up means for sending active code to the

active node," as recited in claim 1, "means for selecting active code in the library," as recited in

claim 2 and "means for generating active code on the fly," as recited in claim 4. Since the

specification sets forth an adequate disclosure of the means plus function language, Appellant

has particularly pointed out and distinctly claimed the invention as required by 35 U.S.C. § 112,

second paragraph. *In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994). Further, the

claimed signaling control units 3,4 are more than simply a general purpose computer. *Aristocrat*

Techs. Austl. Pty Ltd. v. Int'l Game Tech., 521 F.3d 1328, 1333 (Fed. Cir. 2008).

Therefore, Appellant submits that the claimed elements are supported in the written

description and amendment of the claims is not required. Consequently, the 35 U.S.C. § 112,

second paragraph rejection should be reversed.

   2.   **Rejection of claims 1-16 under 35 U.S.C. § 103(a) as allegedly being**
unpatentable over Applicant's admitted prior art in view of DAN: Distributed Code
Caching for Active Networks (Decasper, D. and Plattner, B., Proceedings of IEEE
INFOCOM'98, April 1998, pp. 609-616).

   Further, as previously submitted, Appellants respond to certain arguments presented in

the Examiner's Answer dated August 3, 2009. In the Examiner's Answer, the Examiner

provides several pages of response to Appellants' arguments (beginning on page 10 of the

Examiner's Answer).

   In general, Appellants address some of the Examiner's response to Appellants' arguments

as follows:

   A: The Examiner maintains that Appellants have presented arguments throughout the

Appeal Brief that "'AAPA' and 'DAN' do not teach sending active code to an active node upon

or in response to 'setting up a virtual circuit between a client terminal and a server terminal.'"

The Examiner then traverses this argument by contending that this limitation is not recited within

the claim (*see* page 10 of the Examiner's Answer).

   However, Appellants respectfully submit that the Examiner first alleged on pages 5-6 of

the Office Action dated October 20, 2008, that "the Applicant did admit that the prior art disclose

wherein active nodes receive active code in response to setting up a virtual circuit between a

client and a server." Appellants rebutted this statement made by the Examiner, on pages 12-13

of the Appeal Brief, by pointing out that the Appellants had not made such an admission, and

that the Examiner's statement is incorrectly characterizing the AAPA and the Appellants'

arguments, because the AAPA is disclosing only that the active code to be deployed to an active

node is determined from the client or user terminal requesting the transfer of data. Nowhere in

the AAPA is there any teaching or suggestion that the active code is sent to the active node *in*

response to setting up a virtual circuit between a client and a server. Instead, the sending of the

active code to the active node in the AAPA occurs after the code to be deployed is determined

from the client or user terminal requesting the transfer of data, and is contained in the data stream

received by the active node. Specifically, the active code in the AAPA is associated with the

data stream by applications of a user and sent to the active node along with the data stream.

Therefore, the AAPA clearly does not teach or suggest that the active node receives the

active code *in response to setting up a virtual circuit between a client and a server*, as the

Examiner has alleged.

In view of at least the aforementioned reasons, Appellants emphasize that the AAPA fails

to teach or suggest "a signaling control unit comprising: means for receiving a request to set up a

virtual circuit between a client terminal and a server terminal; a virtual circuit set-up means; and

means controlled by the virtual circuit set-up means for sending active code to the active node,"

as recited in claim 1, and that DAN does not remedy these deficiencies of the AAPA.

B: Regarding claim 1, the Examiner refers to the arguments on pages 10-12 of the

Appeal Brief, as well as to pages 1 and 5 of the Appellants' specification, in reaching a

conclusion that it is allegedly clear by the Appellants' own admission that "the Session Initiation

Protocol is known in the art and that the Session Initiation Protocol is used by the means of the claimed invention for the claimed features of receiving a virtual circuit request from a client terminal and means for setting up a virtual circuit between the client terminal and a server terminal" (*see* page 13 of the Examiner's Answer). The Examiner further submits on page 14 of the Examiner's Answer that the Appellant allegedly has readily admitted that the Session Initiation protocol is a known virtual circuit protocol and was known to be used by a signaling control unit such as a SIP proxy to receive a virtual circuit from a client terminal and set up a virtual circuit between the client terminal and a server terminal.

Appellants respectfully submit that the Examiner's statements categorizing the alleged admissions by the Appellants *are incorrect and unsupported*.

To the contrary, the Appellants have only conceded, on page 1 of the Appellants' specification, that "[v]arious prior art protocols, including the Session Initiation Protocol (SIP) and the H323 protocol, enable the signaling control units to communicate with a network using the Internet Protocol (IP), known as an IP network. The Session Initiation Protocol ... regulates exchanges between data transfer applications in real time over IP networks."

However, the Examiner appears to have relied heavily upon page 5 of the Appellants' disclosure of the invention, in which it is disclosed that the setting up of the virtual circuit of the present invention is managed by one or more signaling control units, the signaling control units comprising means for receiving a virtual circuit request from a client terminal and means for setting up a virtual circuit between the client terminal and a server terminal. Furthermore,

"[s]uch means may use the H323 protocol or the Session Initialization Protocol known in the art and all the means for communicating with an IP network with which signaling control units are conventionally provided" (*see* also pages 12-13 of the Examiner's Answer).

Accordingly, Appellants clearly do not concede the use in the prior art of the SIP by means of the claimed invention *for the claimed features of receiving a virtual circuit request from a client terminal and means for setting up a virtual circuit between the client terminal and a server terminal*. Instead, the Appellants' specification, in describing on page 5 an exemplary embodiment of the present invention, merely concedes *that the SIP protocol **has been used in the prior art**, but the prior art is silent regarding how the protocol may be used in the context of signaling control*.

As Appellants have disclosed on page 5 of Appellants' specification, **it is only in accordance with an exemplary embodiment of the present invention, that contemplates a use, by signaling control units, of the Session Initialization Protocol**. In other words, the SIP protocol only defines the protocol itself, but the prior art does not teach or suggest using such a defined protocol to do anything in particular, or to use the SIP protocol in the means as defined in the present invention. Thus, although the SIP protocol may be a known *type of protocol* in the prior art, *it is only with knowledge of the Appellants' invention* that would have led one of ordinary skill in the art to use the SIP protocol in a signaling control unit, the signaling control unit comprising means for receiving a request to set up a virtual circuit between a client terminal

and a server terminal, and virtual circuit set-up means, and means controlled by the virtual circuit

set-up means for sending active code to the active.

C: Furthermore, the Examiner refers to RFC 2543 (*see* pages 14-16 of the Examiner's

Answer), and RFC 2543 allegedly discusses the use of the SIP protocol as well as the servicing

of *requests*. However, although general *requests* (such as invitations to join) are disclosed by

RFC 2543, RFC 2543 makes no mention of the SIP proxy *setting up a virtual circuit* or even

receiving a request to set up such a virtual circuit. Again, the Examiner has relied upon improper

hindsight obtained from the Appellants' own disclosure of the present invention in concluding

that the AAPA's mere inclusion of a SIP proxy within a signaling control unit suggests the

setting up of a virtual circuit. None of the cited references, either alone or in combination,

teaches of suggests the request to set up or the setting up of, *specifically*, a virtual circuit.

D: The Examiner reiterates, on pages 16-21 of the Examiner's Answer, the contention

that the combined teachings of the AAPA and DAN would disclose every element as recited by

claim 1. The Examiner has placed particular reliance on the AAPA, and states on page 16 of the

Examiner's Answer that "[the] 'AAPA' disclosed means for receiving a request to set up a

virtual circuit between a client terminal and a server terminal and a virtual circuit set-up means,

… and the combined teachings of 'AAPA' and 'DAN' teach means controlled by the virtual

circuit set-up means for sending active code to the active node."

However, as discussed above, the AAPA does not at all teach or suggest, *inter alia*, means for receiving a request to set up *a virtual circuit* between a client terminal and a server terminal and *a virtual circuit set-up means*.

DAN fails to remedy the deficiencies of AAPA, at least because DAN also fails to teach or suggest, *inter alia*, "a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal; a virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node," as recited in claim 1. DAN fails to teach or suggest any of a virtual circuit, a means for receiving a request to set up a virtual circuit, a virtual circuit set-up means, or means controlled by a virtual circuit set-up means for sending active code to the active node. In fact, DAN is completely silent on both *setting up a virtual circuit* as well and *a request to set up a virtual circuit*.

Therefore, due at least to the above-discussed deficiencies of the AAPA and DAN, neither the AAPA nor DAN, alone *or in combination*, teaches or suggests every element as recited by claim 1. Accordingly, Appellants submit that independent claim 1 is patentable over AAPA in view of DAN for at least these reasons. Claim 6 is a related independent method claim, and is also submitted to be patentable for similar reasons as discussed above. Claims 2-5 and 7-16 are dependent claims which are also patentable at least in view of their dependencies as well as for their additionally recited elements.

Appellants respectfully request the Board not to sustain the rejections of claims 1-16.

CONCLUSION

For the above reasons as well as the reasons set forth in Appeal Brief, Appellant

respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal.

An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,

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